User Interface and User Interactions Session

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Goals of User Interface and User Interactions Session

Knowledge modelers need to be aware of how the recommendations they generate will be displayed. The purpose of this session is to:

1) Introduce questions that merit exploration when designing a user interface.

2) Explore the answers reached to date on the ATHENA Opioid Therapy DSS project.

3) Interact in designing a DSS interface that supports the latest cholesterol guidelines.

Iterative Design Process

1) When does interface design take place?

2) Where do the user interface specifications come from?

3) Who is involved in the user interface design?

Essential Questions for Consideration

- Who will use the DSS?

- What behavior do you want to change?

- What information do you want to present to accomplish the behavior change?

Exploration

☏　As you design the interface ask questions such as:

1) What do you want the user to do?

2) How much time do you expect a typical user to interact with the DSS?

3) Do you have the data for clinically significant recommendations, or does the interface need to request that data?

4) What is the ability of the technology to provide real-time calculations? How does that impact the design of your DSS?

5) How do you layer and separate information in order to improve the user's comprehension of the data?

ATHENA Opioid Therapy Decision Support System

Patient Name: Flynn, Larry Jr.   SS#: xxx-xx-0119   Close Window

Recommendations	Support Tools	Patient Graphing

Today's Pain Evaluation:

Average Pain
Last Week: [▼]   Overall
Functioning: [▼]   % Pain
Reduction Goal: [▼]   Goal, Overall
Functioning: [▼]   → Update
Recommendations

Recommendations:

Sort by: **risk level/category**

Risk levels: 🔴 high   🟨 medium   🟩 low

average pain
last week

overall functioning

🔴

Positive Urinary Drug Screen

Patient Record indicates a positive urinary drug screen for illicit drug cocaine. A referral to
Addiction Treatment Services is warranted before opioid medication is prescribed......   more

🟨 **Age 65+**

Older patients are more likely to experience difficulty with common adverse effects.....   more

🟨

Pain Assessment Due Now

There is no pain assessment in CPRS. Complete the

Pain Assessment now   more

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Interactive Exercise

✎   Take out your results from the session lead by Denise Daniels, Ph.D. Let's build on yesterday's learning by creating a few different sketches for a cholesterol DSS. In this example, the patient has been diagnosed with high LDL. The patient is in the outpatient clinic for a follow-up visit with a primary care physician; the DSS pops up on top of the patient's record. The goals of the DSS are to increase screening for lipids and improve therapy.

1)   What are the DSS' primary features? *Hints: Recommendation copy? Fields for requesting additional data? Feedback area? Re-compute button? Support tools? Graphs? Patient identifiers? Goal statement?*

2)   What will the user look at first?

3)   What else can you describe about the design of the interface?

Additional Resources

- The ATHENA DSS website has additional resources on subjects such as Protégé, interface design, usability testing, and published articles: http://www.chce.research.med.va.gov/athena/

- The ATHENA Opioid Therapy team wrote several documents including a specification document regarding knowledge modeling and an overall product specification document. If you would like a copy please email: brigit.vucic@va.gov.